

### ABSTRACT OF THE DISCLOSURE

In accordance with the invention, on-line group servers issue group membership or group non-membership certificates upon request. Furthermore, when a requester requests a group certificate for a particular entity, the associated group server makes a dynamic decision regarding the entity's membership in the group rather than simply referring to a membership list. These capabilities provide for, among other things, the implementation of "nested" groups, wherein an entity may indirectly prove membership in a first, or nested, group by proving membership in a second group which is a member of the first group. In the nested group situation, the dynamic decision may involve the group server of the nested group obtaining proof of the entity's membership or non-membership in the second group. Proof of membership or non-membership may include a group certificate and/or a group membership list. ~~Alternatively, the requester may present proof of the entity's membership or non-membership in the second group to the group server of the nested group. In the common case, the requester and the entity will be the same.~~